

Recorded water levels in this bulletin are derived from a representative network of water level gages on each lake (see cover [map](#)). Providers of these data are the National Ocean Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, and Integrated Data Science Management, Department of Fisheries and Oceans, Canada. The Detroit District, Corps of Engineers and Environment Canada derive historical and projected lake levels under the auspices of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data.

This bulletin is produced monthly as a public service. Tables of possible storm-induced rises at key locations on the Great Lakes are available on request. The Corps also publishes the "Great Lakes, Connecting Channels and St. Lawrence River Water Levels and Depths," twice monthly, which provides a forecast of depths in the connecting rivers between the Great Lakes and the International Section of the St. Lawrence River. These publications can be obtained free of charge by writing to the address shown on the front cover, or by calling (313) 226-6441. Notices of change of address should include the name of the publication(s). Visit <http://www.lre.usace.army.mil/glh> to access much of this information on the internet.

## Great Lakes Basin Hydrology November 2010

Precipitation was above average over the Lake Superior and Lake Erie basins and below average over the Lake Michigan-Huron and Lake Ontario basins during November. During the last 12 months, precipitation over the Lake Superior and Lake Michigan-Huron basins has been below average. Precipitation has been near average over the Lake Erie and Lake Ontario basins during the past year. Outflows from Lake Superior, Lake Michigan-Huron and Lake Erie were below average in November. Lake Ontario's outflow was above average. The tables below list precipitation, water supply and outflow information for each Great Lake.

In November, the monthly mean water levels of Lake Superior and Lake Michigan-Huron were 13 and 17 inches below their respective long-term (1918-2009) averages. Lake St Clair and Lake Erie were 7 and 4 inches, respectively below their long term averages, while Lake Ontario was 2 inches below average. Boaters should be aware of hazards to navigation due to current water conditions.

PRECIPITATION (INCHES)								
BASIN	November				12-Month Comparison			
	2010	Average (1900-2008)	Diff.	% of Average	Last 12 months	Average (1900-2008)	Diff.	% of Average
Superior	2.62	2.49	0.13	105	27.53	30.51	-2.98	90
Michigan-Huron	1.82	2.78	-0.96	65	29.80	32.44	-2.64	92
Erie	3.58	2.87	0.71	125	35.78	35.40	0.38	101
Ontario	3.00	3.19	-0.19	94	36.04	35.71	0.33	101
Great Lakes	2.00	2.76	-0.76	72	30.34	32.64	-2.30	93

LAKE	November WATER SUPPLIES <sup>1</sup> (CFS)		November OUTFLOW <sup>2</sup> (CFS)	
	2010	Average <sup>4</sup> (1900-1999)	2010	Average <sup>3</sup> (1900-1999)
Superior	5,000	18,000	55,000	80,000
Michigan-Huron	-19,000	39,000	175,000	190,000
Erie	2,000	-5,000	185,000	199,000
Ontario	37,000	20,000	245,000	238,000

Notes: Values (excluding averages) are based on preliminary computations. CFS denotes cubic feet per second.

<sup>1</sup> Negative water supply denotes evaporation from lake exceeded runoff from local basin.

<sup>2</sup> Does not include diversions.

<sup>3</sup> Niagara and St Lawrence rivers average outflows are based on period of record 1900-1989 and 1900-2005, respectively

<sup>4</sup> Lakes Erie and Ontario average water supplies based on 1900-1989